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54 **Skin cleansing compositions.**

57 Compositions for cleansing and conditioning the skin. The compositions comprise a soap and a conditioning agent which is a salt wherein the cation moiety is a protonated fatty amine or a fatty quaternary ammonium ion and the anionic moiety is the anion of a fatty acid soap or an anionic synthetic detergent.

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Office

EUROPEAN SEARCH REPORT

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DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl. 3)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
A	<u>CH - A - 548 447</u> (UNILEVER) * complete document * --		C 11 D 1/62
A	<u>GB - A - 1 461 586</u> (UNILEVER) * complete document * --		C 11 D 9/02 C 11 D 17/00
A	<u>GB - A - 1 370 284</u> (UNILEVER) * complete document * ----		
			TECHNICAL FIELDS SEARCHED (Int. Cl. 3)
			A 61 K 7/00 C 11 D 1/00 C 11 D 9/00 C 11 D 17/00
			CATEGORY OF CITED DOCUMENTS
			X: particularly relevant A: technological background O: non-written disclosure P: intermediate document T: theory or principle underlying the invention E: conflicting application D: document cited in the application L: citation for other reasons
<input checked="" type="checkbox"/> The present search report has been drawn up for all claims			&: member of the same patent family, corresponding document
Place of search Berlin		Date of completion of the search 19-05-1980	Examiner SCHULTZE

SKIN CLEANSING COMPOSITIONS

The present invention relates to improvements in soap compositions for use on the skin. The improvements reside in the formulation of soap compositions which contain certain nitrogen-based conditioning agents. These conditioning agents are salts wherein the cation moiety is a protonated fatty amine or a fatty quaternary ammonium ion and the anion moiety is the anion of a fatty acid soap or an anionic synthetic detergent. The conditioning agents are present at levels of from about 0.25% to 25% by weight in the composition.

BACKGROUND ART

The most commonly used agent for cleansing the skin is soap. It has long been recognized that the cleansing of the skin with soap tends to remove natural oils from the skin, thereby causing dryness and roughness as well as a sensation of discomfort in the skin. Dryness and roughness can be perceived tactually by rubbing one's fingers across the skin and will be referred to herein as "external skin feel". Discomfort of the skin without touching (perceived as skin "tension" or "tightness") is felt internally by the person whose skin has been cleansed with soap and will be referred to herein as "internal skin feel". This internal feel is most readily perceived immediately after washing and drying of the skin.

There have been many attempts to alleviate the adverse skin effects caused by soap, by incorporating into soap compositions a variety of mildness additives. These have included vegetable oils, mineral oils, free fatty acids, fatty acid esters of polyols, and the like.

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While these materials tend to alleviate the negative effects of soap upon the skin, there is a continuing need for improved skin conditioners to be used with soap.

5 The object of the present invention is to provide soap compositions which are effective in cleansing the skin and are highly effective in alleviating the adverse effects on skin feel (especially external skin feel) which normally accompany the use of soap on the skin.

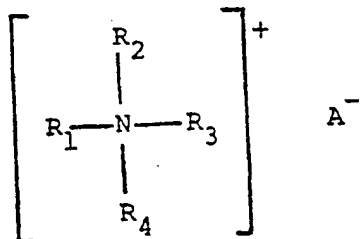
DISCLOSURE OF INVENTION

10 According to the present invention, it has been found that certain salts wherein the cation moiety is a protonated fatty amine or a fatty quaternary ammonium ion, and the anion moiety is the anion of a fatty acid soap or an anionic synthetic detergent are effective in alleviating the adverse effects on external skin feel caused by washing the skin with soap.

15 The present invention encompasses skin cleansing compositions which comprise:-

- 20 a. from about 3% to about 95% by weight of a soap selected from the group consisting of alkali metal salts of fatty acids containing from about 8 to about 20 carbon atoms and mixtures of said soaps; and
- 25 b. from about 0.25% to about 25% of a skin conditioning agent selected from compounds having the formulas:

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5 R_{18} are each selected from the group consisting of hydrogen and aliphatic hydrocarbyl groups containing from 1 to 24 carbon atoms, with at least one of R_{16} , R_{17} and R_{18} being an aliphatic hydrocarbyl group containing from 8 to 24 carbon atoms, wherein R_{19} , R_{20} , R_{21} and R_{22} are each selected from the group consisting of hydrogen and aliphatic hydrocarbyl groups containing from 1 to 24 carbon atoms, with at least one of R_{19} , R_{20} , R_{21} and R_{22} being an aliphatic hydrocarbyl group containing from 8 to 24 carbon atoms, wherein n is an integer of from 1 to 20, wherein m is an integer of from 2 to 20 and wherein A is an anion which is selected from the group consisting of the anions of fatty acid soaps and anionic synthetic detergents; 15 wherein the weight ratio of soap to conditioning agent is from 1:1 to 100:1.

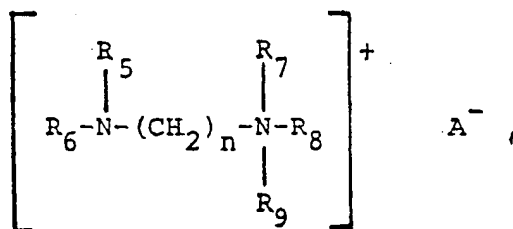
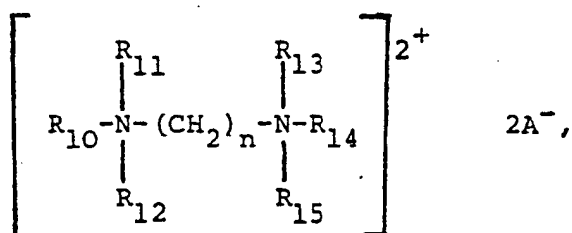
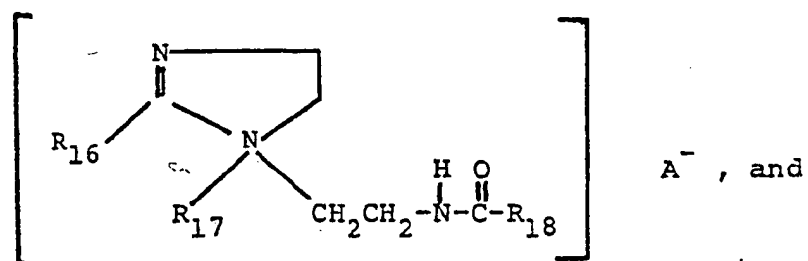
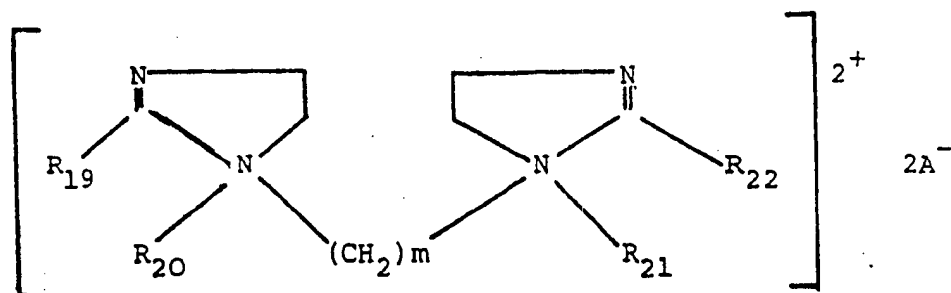
20 2. A composition according to Claim 1 characterized in that the ratio of soap to skin conditioning agent is from 3:1 to 20:1.

3. A composition according to Claim 2 wherein "n" in formulas II and III is an integer of from 1 to 4 and wherein "m" in formula V is an integer of from 2 to 4.

25 4. A composition according to any of Claims 1 to 3 characterized in that it is in the form of a toilet bar comprising from 60% to 90% soap and from 5% to 15% conditioning agent.

30 5. A composition according to any of Claims 1 to 3 characterized in that it is in the form of a lotion comprising from 3% to 15% soap, from 0.25% to 5% skin conditioning agent and from 75% to 95% water.

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wherein R_1 , R_2 , R_3 and R_4 are each selected from the group consisting of hydrogen and aliphatic hydrocarbyl groups containing from 1 to about 24 carbon atoms, with at least one of R_1 , R_2 , R_3 and R_4 being an aliphatic hydrocarbyl group containing from about 8 to about 24 carbon atoms, wherein R_5 , R_6 , R_7 , R_8 and R_9 are each selected from the group consisting of hydrogen and aliphatic hydrocarbyl groups containing from 1 to about 24 carbon atoms with at least one of R_5 , R_6 , R_7 , R_8 and R_9 being an aliphatic hydrocarbyl group containing from about 8 to about 24 carbon atoms, wherein R_{10} , R_{11} , R_{12} , R_{13} , R_{14} and R_{15} are each selected from the group consisting of hydrogen and C_1 to C_{24} aliphatic hydrocarbyl groups with at least one of R_{10} , R_{11} , R_{12} , R_{13} , R_{14} and R_{15} being an aliphatic hydrocarbyl group containing from about 8 to about 24 carbon atoms, wherein R_{16} , R_{17} and R_{18} are each selected from the group consisting of hydrogen and aliphatic hydrocarbyl groups containing from about 1 to about 24 carbon atoms, with at least one of R_{16} , R_{17} and R_{18} being an aliphatic hydrocarbyl group containing from about 8 to about 24 carbon atoms, wherein R_{19} , R_{20} , R_{21} and R_{22} are each selected from the group consisting of hydrogen and aliphatic hydrocarbyl groups containing from 1 to about 24 carbon atoms, with at least one of R_{19} , R_{20} , R_{21} and R_{22} being an aliphatic hydrocarbyl group containing from about 8 to about 24 carbon atoms, wherein n is an integer of from 1 to about 20, wherein m is an integer of from 2 to about 20, and wherein A is an anion which is selected from the group consisting of the anions of fatty acid soaps and anionic synthetic detergents. The term "hydrocarbyl" as used herein refers to a radical which consists of hydrogen and carbon atoms.

All percentages herein are "by weight" unless specified otherwise.

THE SOAP COMPONENT

5 The soap component of the present compositions is an alkali metal (e.g., sodium or potassium) soap or mixture of soaps of fatty acids containing from about 8 to about 24, preferably from about 10 to 20 carbon atoms. The fatty acids used in making the soaps can be obtained from natural sources such as, for instance, plant or animal-derived
10 glycerides (e.g., palm oil, coconut oil, babassu oil, soybean oil, castor oil, tallow, whale oil, fish oil, tallow, grease, lard and mixtures thereof). The fatty acids can also be synthetically prepared (e.g., by oxidation of petroleum stocks or by the Fischer-Tropsch process).

15 Alkali metal soaps can be made by direct saponification of the fats and oils or by the neutralization of the free fatty acids which are prepared in a separate manufacturing process. Particularly useful are the sodium and potassium salts of the mixtures of fatty acids derived
20 from coconut oil and tallow, i.e., sodium and potassium tallow and coconut soaps.

The term "tallow" is used herein in connection with fatty acid mixtures which typically have an approximate carbon chain length distribution of 2.5% C₁₄, 29% C₁₆, 23%
25 C₁₈, 2% palmitoleic, 41.5% oleic and 3% linoleic (the first three fatty acids listed are saturated). Other mixtures with similar distribution, such as the fatty acids derived from various animal tallows and lard, are also included within the term tallow. The tallow can also
30 be hardened (i.e., hydrogenated) to convert part or all of the unsaturated fatty acid moieties to saturated fatty acid moieties.

When the term "coconut oil" is used herein it refers to fatty acid mixtures which typically have an approximate
35 carbon chain length distribution of about 8% C₈, 7% C₁₀, 48% C₁₂, 17% C₁₄, 9% C₁₆, 2% C₁₈, 7% oleic, and 2% linoleic (the first six fatty acids listed being saturated).

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Other sources having similar carbon chain length distribution such as palm kernel oil and babassu kernel oil are included with the term coconut oil.

When compositions of the present invention are prepared in the form of toilet bars, the soap component is preferably either sodium soap or a mixture of sodium and potassium soap wherein the mixture contains no more than about 25% by weight potassium soap.

Also, it is preferable in such bars that the total soap component comprises (a) from about 20% to 80% by weight of the soap component of a mixture containing soaps having from 8 to 14 carbon atoms and (b) from about 20% to 80% by weight of the soap component of soaps having from about 16 to 20 carbon atoms.

Soaps having such preferred chain length distribution characteristics can be realized by utilizing mixtures of tallow and coconut fatty acids in tallow/coconut weight ratios varying between 90:10 and 50:50.

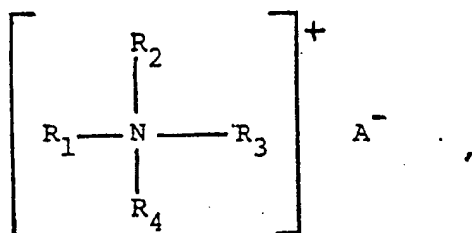
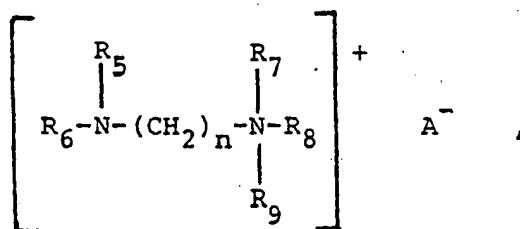
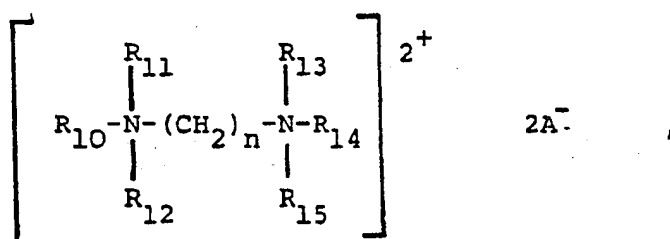
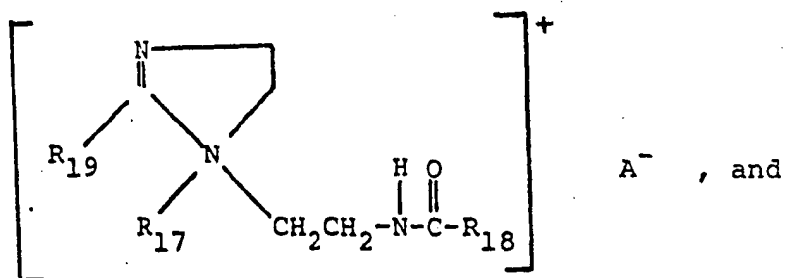
The soap compositions herein can also contain free fatty acids having carbon chain lengths of from about 8 to 18. The presence of such free fatty acids tends to improve the speed and volume of lathering of the composition and confers a creamy feel to the lather. When free fatty acids are utilized in the compositions herein, they are generally present at levels of from about 5% to about 25% of the total amount of soap.

Toilet bars containing the above-described soap mixtures, as well as their manufacture, are described in more detail in Megson et al, U.S. Patent No. 3,576,749, issued April 27, 1971, and White, U.S. Patent No. 3,835,058, issued September 10, 1974. Both of these patents are incorporated herein by reference.

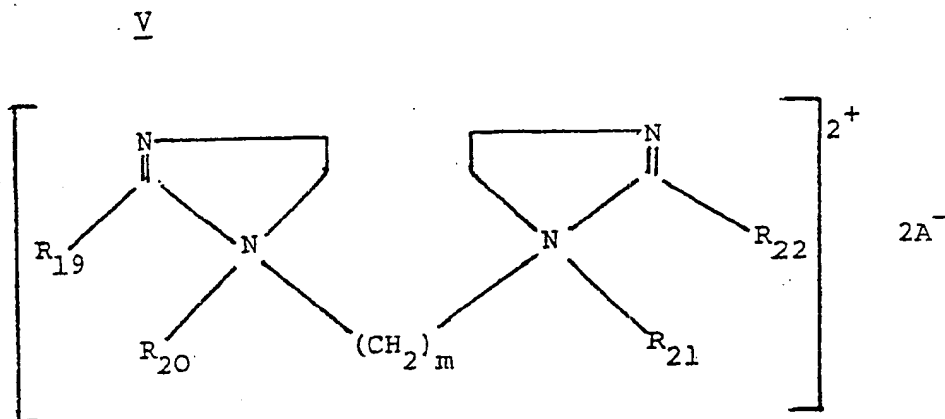
THE SKIN CONDITIONING COMPONENT

The skin conditioning component of the present compositions is selected from the group of compounds having the formulas:

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wherein R_1 , R_2 , R_3 and R_4 are each selected from the group consisting of hydrogen and aliphatic hydrocarbyl groups containing from 1 to about 24 carbon atoms, with at least one of R_1 , R_2 , R_3 and R_4 being an aliphatic hydrocarbyl group containing from about 8 to about 24 carbon atoms, wherein R_5 , R_6 , R_7 , R_8 and R_9 are each selected from the group consisting of hydrogen and aliphatic hydrocarbyl groups containing from 1 to about 24 carbon atoms with at least one of R_5 , R_6 , R_7 , R_8 and R_9 being an aliphatic hydrocarbyl group containing from about 8 to about 24 carbon atoms, wherein R_{10} , R_{11} , R_{12} , R_{13} , R_{14} and R_{15} are each selected from the group consisting of hydrogen and C_1 to C_{24} aliphatic hydrocarbyl groups with at least one of R_{10} , R_{11} , R_{12} , R_{13} , R_{14} and R_{15} being an aliphatic hydrocarbyl group containing from about 8 to about 24 carbon atoms, wherein R_{16} , R_{17} and R_{18} are each selected from the group consisting of hydrogen and aliphatic hydrocarbyl groups containing from 1 to about 24 carbon atoms, with at least one of R_{16} , R_{17} and R_{18} being an aliphatic hydrocarbyl group containing from about 8 to about 24 carbon atoms, wherein R_{19} , R_{20} , R_{21} and R_{22} are selected from the group consisting of hydrogen and aliphatic hydrocarbyl groups containing from 1 to about 24 carbon atoms, with at least one of R_{19} , R_{20} , R_{21} and R_{22} being an aliphatic hydrocarbyl group containing from about 8

to about 24 carbon atoms, wherein n is an integer of from 1 to about 20 (preferably from 1 to about 4), wherein m is an integer of from 2 to about 20 (preferably 2 to 4) and wherein A is an anion which is selected from the group consisting of the anions of fatty acid soaps and anionic synthetic detergents.

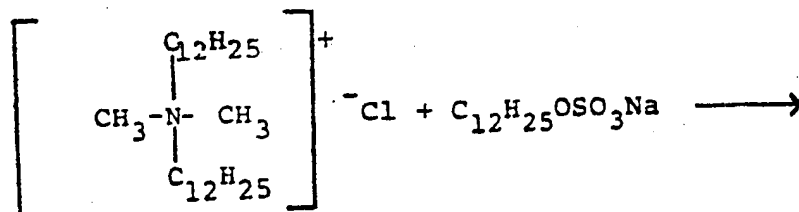
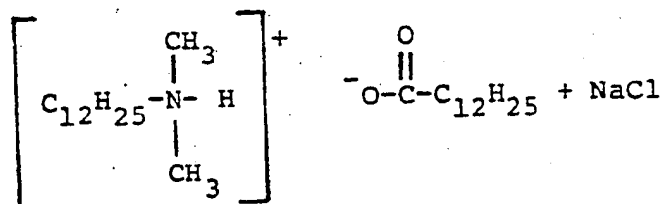
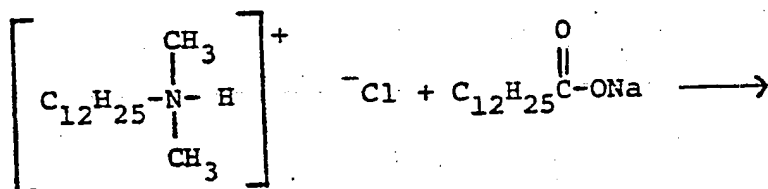
These skin conditioning compounds are salts. The cation moiety of the salt is a protonated fatty amine or protonated imidazoline moiety or a quaternary ammonium or imidazolinium moiety. For example, in Formula I, when one or more of the "R" groups is hydrogen, the cation is a protonated amine moiety. If all four "R" groups are hydrocarbyl groups, the cation is a quaternary ammonium moiety.

Amines can be protonated by reacting them with an acidic material (e.g., HCl or acetic acid). The resulting compound is a protonated amine salt, e.g., an amine hydrochloride or an amine acetate. Amines which are protonated to provide cation moieties for the present invention can be primary, secondary or tertiary amines, and must contain at least one aliphatic hydrocarbyl group of from 8 to 24 carbon atoms. Examples of such amines are dodecylamine, methyl octadecyl amine, dimethyl hexadecyl amine, didodecyl methyl amine, ethyl dodecyl octadecyl amine, N-tetradecyl, N'-propyl-1,3-propane diamine, 1-stearyl-amidoethyl-2-stearyl imidazoline and 1-ethylene bis(2-stearyl imidazoline). Examples of protonated amine salts formed from these amines are dodecylamine acetate, methyl octadecyl amine hydrochloride, dimethyl hexadecylamine hydrochloride, didodecyl methyl amine acetate, ethyl dodecyl octadecyl amine acetate, N-tetradecyl, N'-propyl-1,3-propane diamine dihydrochloride, 1-stearyl-amidoethyl-2-stearyl imidazolinium hydrochloride and 1-ethylene bis(2-stearyl-imidazolinium) dihydrochloride. Such amine salts can be used to provide the protonated amine moiety which can serve as the cation of the skin conditioning agents of the present invention.

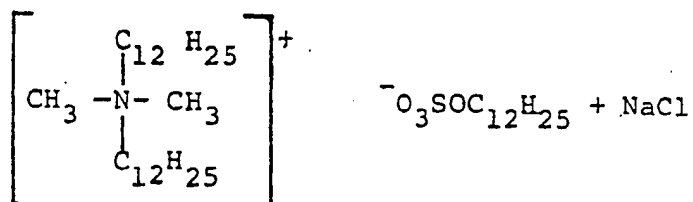
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The quaternary ammonium ions are the cations which are formed by quaternizing a tertiary aliphatic amine with an additional aliphatic group. This is accomplished by reacting a tertiary amine with an alkylating agent such as methyl chloride. For example, if didodecyl methyl amine is reacted with methyl chloride, the resulting quaternary ammonium salt is didodecyltrimethylammonium chloride. Examples of specific quaternary ammonium salts which can be used to provide the quaternary ammonium cation moiety for the skin conditioning agents herein are didodecyltrimethylammonium chloride, dodecyltrimethylammonium bromide, dihexadecyltrimethylammonium acetate, N,N'-ditetradecyl-N,N',N'-tetramethyl-1,3-propyl diammonium dichloride, N,N'-distearyl-N,N',N'-tetramethyl-1,10-decyl diammonium diacetate, 1-methyl-1-stearyl-amidoethyl-2-stearyl imidazolinium methyl sulfate and 1-ethylene bis(2-stearyl, 1-methylimidazolinium) dichloride.

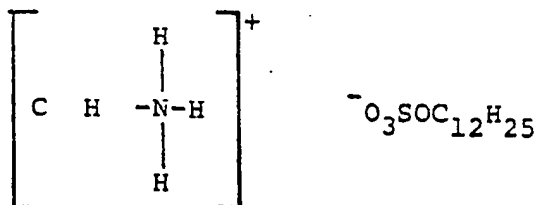
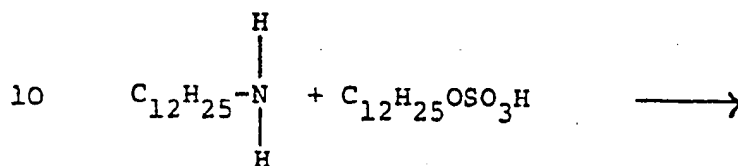
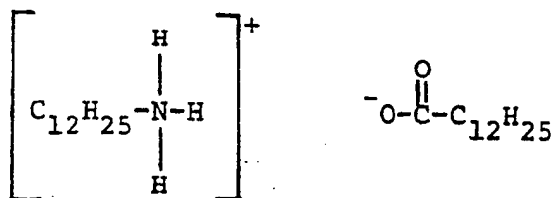
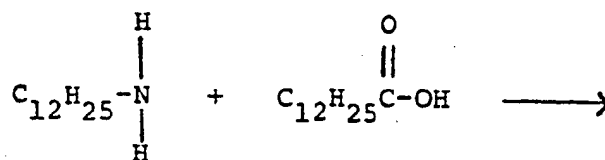
The conditioning agents of the present invention are prepared by simple reaction between a protonated amine or imidazoline salt (e.g., hydrochloride) or a quaternary ammonium or imidazolinium salt, and a fatty acid soap or an anionic synthetic detergent. For example:



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5 In the case where the cationic moiety is a protonated amine or imidazoline, the conditioning agent can also be prepared by reacting the free amine or imidazoline with a fatty acid (instead of a soap) or the acid form of the synthetic detergent (instead of the salt form of the detergent). For example:-



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The anionic moiety of the skin conditioning agent herein can be the anion of a fatty acid soap (i.e., the radical

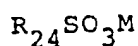
5 $R_{23}-\overset{\overset{O}{\parallel}}{CO}^-$ wherein R_{23} is a C_7 to C_{23} aliphatic group) or the anion of an anionic synthetic detergent. Any anionic synthetic detergent can be used to provide the anion moiety for the skin conditioning agents herein. The most common types of anionic synthetic detergents are the water soluble salts (e.g., sodium, potassium, lithium or ammonium) of organic sulfuric reaction products having 10 in their molecule an aliphatic group containing from about 8 to about 24 carbon atoms, and a sulfonic or sulfuric acid ester radical. Synthetic detergents containing a C_8 to C_{24} aliphatic group and having a carboxylic acid radical instead of a sulfonic or sulfuric acid ester radical can also be used. Examples of anionic synthetic 15 detergents which can provide the anion moiety of the skin conditioning agents herein include the following:

1. Alkyl sulfates of the formula



wherein R_{24} is an alkyl (straight or branched chain) of from 8 to 24 carbon atoms and M is an alkali metal or ammonium ion. Specific examples are sodium dodecyl sulfate and potassium hexadecyl sulfate.

25 2. Alkyl sulfonates of the formula

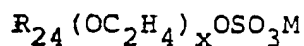


wherein R_{24} and M are as defined in (1) above. These surfactants are also called paraffin sulfonates. Specific examples are sodium dodecyl 30

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sulfonate and ammonium octadecyl sulfonate.

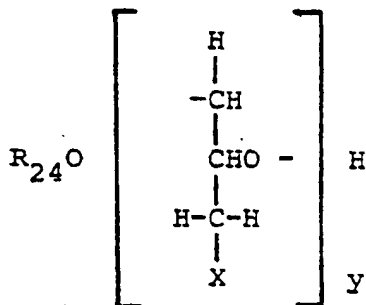
3. Alkyl ether sulfates of the formula



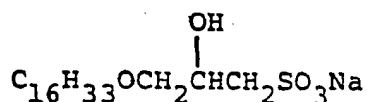
wherein R_{24} and M are as defined in (1) above
and wherein x is a number of from 1 to 10.

Specific examples are $C_{14}H_{29}(OC_2H_4)_3OSO_3Na$ and
 $C_{18}H_{37}(OC_2H_4)_5K$.

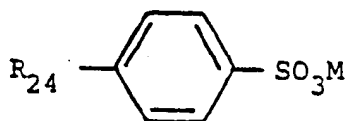
4. Alkyl monoglyceride sulfonates of the formula



wherein y is a number of from 1 to 4, X is
selected from the group consisting of chlorine,
hydroxyl and $-SO_3M$, at least one X in each
molecule being SO_3M , and wherein R_{24} and M
are defined as in (1) above (see U.S. Patent
3,024,273 incorporated herein by reference). A
specific example is

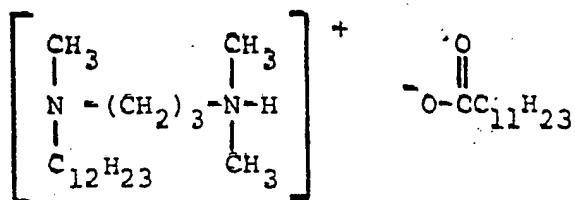
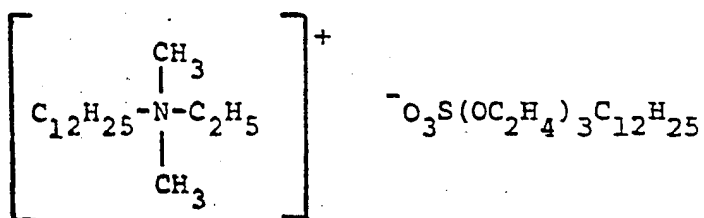
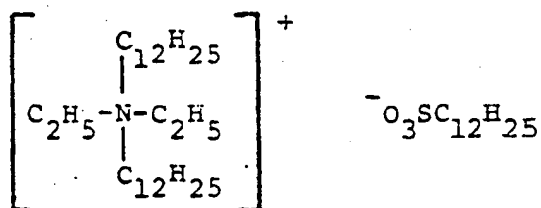
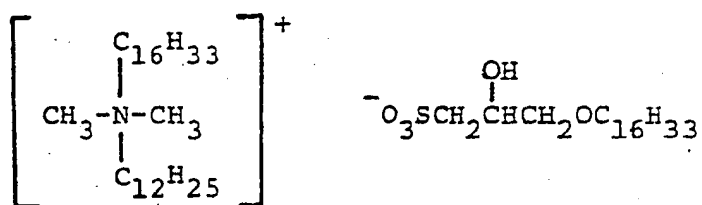
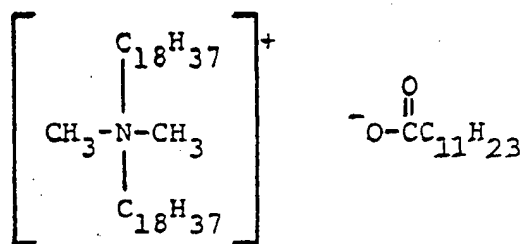


5. Alkyl benzene sulfonates of the formula



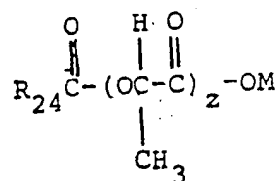
wherein R_{24} and M are as defined in (1) above.
Specific examples are dodecylbenzene sodium
sulfonate and tridecylbenzene potassium
sulfonate.

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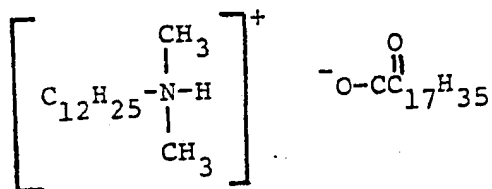
6. Acyl lactylates of the formula



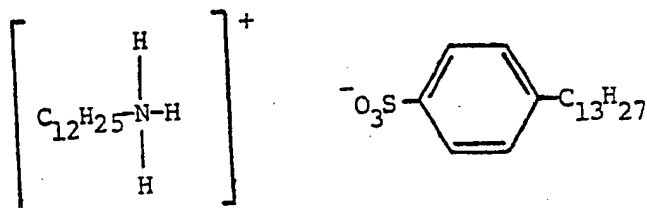
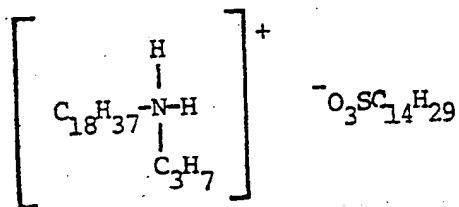
wherein R_{24} and M are as defined in (1) above,
and z is usually a number of from 1 to 3. A
specific example is sodium stearoyl-2-lactylate.

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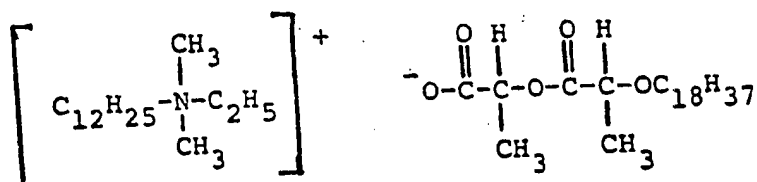
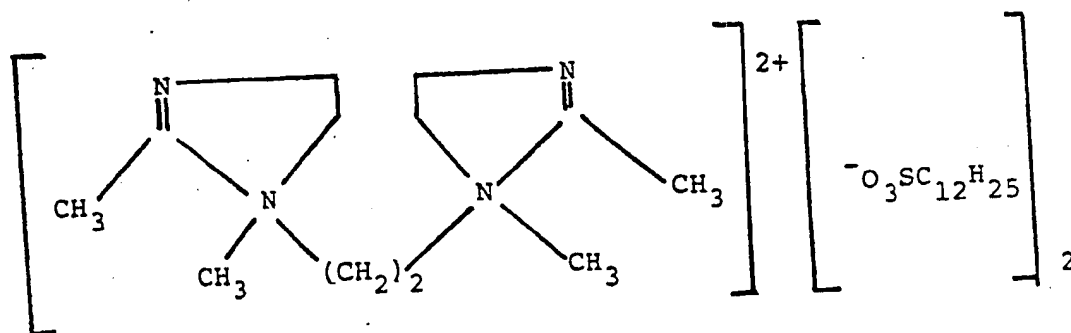
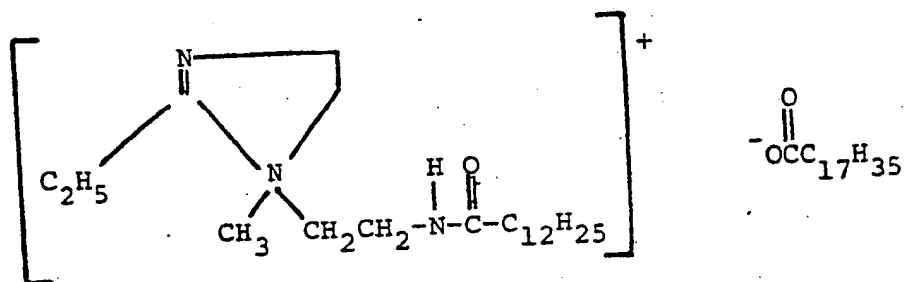
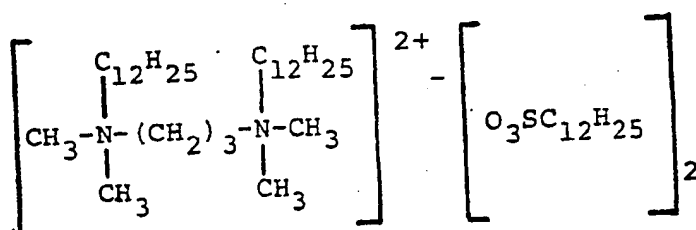
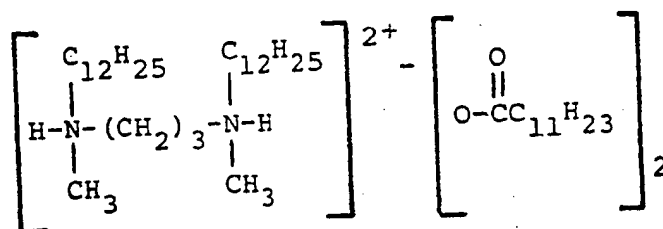
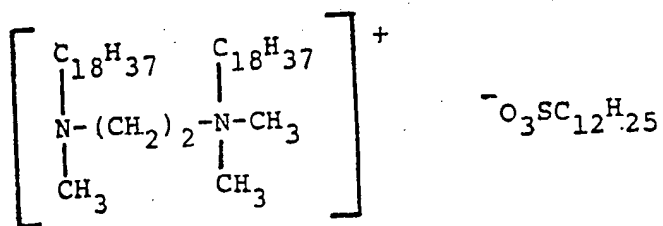
Following is a listing of representative
examples of skin conditioning agents of the
present invention:



10



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Examples of preferred skin conditioning agents of the present invention are stearylammmonium laurate, stearylammmonium stearate, distearyldimethylammmonium laurate, and distearyldimethylammmonium stearate.

5 Generally the ratio of soap to conditioning agent in the compositions herein will be from about 1:1 to about 100:1, preferably from about 3:1 to about 20:1.

OPTIONAL COMPONENTS

10 The soap compositions of the present invention will normally contain water. When the compositions are in the form of a lotion or cream, the water content will be of the order of 50% to about 95%. When the compositions are formulated into toilet bars, the water content will normally be of the order of 20% or less.

15 Conventional antibacterial agents can be included in the present composition at levels of from about 0.5% to about 4%. Typical antibacterial agents which are suitable for use herein are 3,4-di- and 3,4',5-tribromo-salicylanilides; 4,4'-dichloro-3-(trifluoromethyl) cabanilide; 3,4,4'-trichlorocarbanilide and mixtures of
20 these materials.

 Conventional nonionic emollients can be included as additional skin conditioning agents in compositions of the present invention at levels up to about 40%,
25 preferably at levels of from about 1% to about 25%. Such materials include, for example, mineral oils, paraffin wax having a melting point of from about 100°F to about 170°F, fatty sorbitan esters (see U.S. Patent 3,988,255, Seiden, issued October 26, 1976 incorporated herein by
30 reference), lanolin and lanolin derivatives, esters such as isopropyl myristate and triglycerides such as coconut oil or hydrogenated tallow. These nonionic-type skin conditioning agents appear to primarily contribute internal skin feel advantages to the compositions herein,
35 whereas the aforescribed protonated amine or quaternary salt conditioning agents appear to primarily contribute external skin feel advantages.

Free fatty acid such as coconut oil fatty acid can be added to the compositions herein to improve the volume and quality (creaminess) of the lather produced by the compositions herein.

5 Conventional perfumes, dyes and pigments can also be incorporated into compositions of the invention at levels up to about 5%. Perfumes are preferably used at levels of from about 0.5% to 3% and dyes and pigments are preferably used at levels of from about 0.001% to about
10 0.5%.

Synthetic detergents can also be present in compositions herein. Preferred types of synthetic detergents are of the anionic or nonionic type. Examples of anionic synthetic detergents are the salts of organic sulfuric
15 reaction products described in (1) through (5) hereinbefore. Examples of nonionic synthetic detergents are ethoxylated fatty alcohols (e.g., the reaction product of one mole of coconut fatty alcohol with from about 3 to
20 30 moles of ethylene oxide, the reaction product of one mole of coconut fatty acid with from about 3 to 30 moles of ethylene oxide and fatty acid amides such as coconut fatty acid monoethanolamide and stearic acid diethanolamide. Although it may be desirable in some instances to incorporate synthetic detergents into the compositions of the
25 present invention, the compositions herein can be free of synthetic detergents. Synthetic detergents when present are normally employed at levels of from about 5% to about 400% by weight of the amount of soap in the compositions.

30 Insoluble alkaline earth metal soaps such as calcium stearate and magnesium stearate can also be incorporated into compositions of the present invention at levels up to about 30%. These materials are particularly useful in toilet bars in which synthetic detergents are present.
35 in that they tend to reduce the relatively high solubility which such bars normally have. These alkaline earth metal

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soaps are not included within the term "soap" as otherwise used in this specification. The term "soap" as used herein refers to the alkali metal soaps.

Lotions or creams can optionally contain thickeners
5 or phase stabilizers such as carboxymethyl cellulose
or xanthum gum.

COMPOSITION PREPARATION

The compositions of the present invention can be prepared in the form of toilet bars, or if desired, in the
10 form of creams or lotions. The toilet bar is the most preferred form since this is the form of cleansing agent most commonly used to wash the skin.

Preferably the toilet bars are made from a mixture of soaps derived from coconut oil and hydrogenated
15 tallow, the ratio of coconut soap to tallow soap being from about 1:1 to about 1:4. The toilet soap compositions generally contain from about 5% to about 20% moisture.

Toilet bars of the present invention can be prepared in the conventional manner. Moisture-containing base
20 soap can be admixed with the conditioning agent and other optional ingredients such as perfumes, dyes, etc., in an amalgamator, milled in the conventional manner under conventional conditions, and extruded into logs for cutting and stamping into toilet bars. Alternatively, the skin
25 conditioning agent can be co-melted with the base soap and then cooled to solidify the mixture before introduction into the amalgamator.

In making lotions or creams, the conditioning agent is thoroughly mixed with an aqueous solution or dispersion
30 of the soap.

Toilet bars of the invention generally comprise from about 10% to about 90% (preferably from 60% to 90%) soap and from about 1% to about 25% (preferably from about 5% to about 15%) of the conditioning agents of the invention.
35 Creams generally comprises from about 10% to about 45% soap and from about 0.5% to about 15% conditioning agent.

- 20 -

Lotions generally comprises from about 3% to about 15% soap and from about .25% to about 5% conditioning agent. Creams generally contain from about 50% to about 75% water, and lotions about 75% to about 95% water.

- 5 The compositions of the invention can be used to prepare articles for cleansing the skin. These articles can comprise an absorbent paper or woven or nonwoven cloth which is impregnated with a composition of the invention. For example, a nonwoven cloth can be
- 10 impregnated with an aqueous solution of a toilet bar composition of the invention and then subjected to a drying process which drives off sufficient water to reduce the moisture content to about 20% or less of the composition thereby producing a cleansing article which is
- 15 dry to the touch. Generally the amount of composition on the substrate should be sufficient to produce a composition:substrate ratio of about 0.5:1 to 5:1. When it is used it is simply wetted with water and used in the usual manner of a wash cloth.

COMPOSITION USE

- 20 The compositions of the present invention are used in the conventional manner of skin cleansing agents, i.e., they are applied to the skin and then the skin is rinsed with water. In the case of lotions and creams the
- 25 composition can be topically applied "as is" to the skin. In the case of toilet bars, a solution or dispersion of the composition is formed prior to application by wetting the surface of the bar or rubbing the bar onto a wet washcloth. The wet bar or the wet washcloth which contains a portion
- 30 of the composition is then rubbed against the skin.

Accordingly, the present invention also includes a method for cleansing and conditioning of the skin, said method comprising the steps of (1) applying to the skin a composition of the invention and (2) rinsing the skin with

35 water.

The invention will be further illustrated by the following examples:

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EXAMPLE I

A toilet bar of the following composition was prepared:

	Soap (50/50 Tallow/Coconut)	54.9%
	Coconut Fatty Acid	4.5
5	Paraffin Wax (M.P. 133°F)*	24.8
	Stearylammmonium Laurate	5.0
	Perfume	1.0
	NaCl	0.8
	Moisture and Miscellaneous (Incl. Dye etc.)	9.0

10 * Factowax R-133 Standard Oil Company of Ohio

12.94 lbs. of 50/50 tallow/coconut soap noodles (about 85.5% soap, 7% coconut fatty acid, 7% moisture and 0.5% NaCl) were mixed in an amalgamator with 5 lbs. paraffin wax, 1 lb. of stearylammmonium laurate, 17
15 grams of a 1% aqueous dye solution, 0.2 lbs. of perfume, 0.614 lbs. of miscellaneous ingredients and 0.340 lbs. water. The paraffin has been premilled by one pass through a 3-roll soap mill and the stearylammmonium laurate has been preflaked by placing a melt on chill rolls.

20 This mixture of ingredients was then passed through the 3-roll soap mill 2 times at a temperature of 98°F. The resulting flakes were then stored in an airtight container at 100°F overnight. The next day the flakes were milled a final time at 98°F, plodded under vacuum
25 and stamped into bar form.

A panel of 27 women lathered the above bar soap composition (test product) on to a prewashed terry cloth and each woman washed one half of her face as she normally would. The product was then spray rinsed off the skin by
30 a 10 second spray of 90-95°F water. The skin was pat dried with a paper towel. The second half of the face

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was then washed in the same manner with a bar of a control product which was made in the same way as described above but having the following composition:

5	Soap (50/50 Tallow/Coconut)	78.3%
	Coconut Fatty Acid	6.4
	Perfume	1.0
	NaCl	1.1
	Moisture and Miscellaneous	13.2

The women were then asked which product they preferred for internal skin feel and external skin feel immediately after drying the skin, and for external skin feel 15 minutes later. Results were as follows:

15	<u>Internal Skin Feel</u>		<u>External Skin Feel</u>	
	<u>Test Product</u>	<u>Control Product</u>	<u>Test Product</u>	<u>Control Product</u>
Immediately after drying	18	9	18	9
15 Minutes later	-	-	18	5

EXAMPLE II

20 A lotion of the present invention is prepared as follows:

1 lb. of the toilet bar composition prepared according to Example I (prior to being plodded and stamped into bars), along with 0.003 lbs. of xanthan gum, are homogeneously dispersed into 3 lbs. of water by high shear mixing. The resulting skin cleansing lotion has the following formula:

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	Soap (50/50 Tallow/Coconut)	13.7%
	Coconut Fatty Acid	1.1
	Paraffin Wax (M.P. 113°F)	6.2
	Stearylammmonium Laurate	1.25
5	Perfume	0.25
	NaCl	0.2
	Xanthan Gum	0.2
	Water and Miscellaneous (Incl. Dye, etc.)	77.1

10

EXAMPLE III

This example illustrates an alternate method of preparing a toilet bar of the present invention. 11.9 lbs. of 50/50 tallow/coconut sodium soap noodles (81.5%-82.5% soap, 7% coconut fatty acid, 10-11% moisture and 0.5% NaCl) are added to an amalgamator. 0.2 lbs. of perfume and 1.07 lbs. of water and miscellaneous ingredients are then added and mixing is continued until the batch reaches a homogeneous color (about 5 minutes). The mixture is then transferred to a 3-roll soap mill (operating at about 95%), milled twice and stored overnight in an air-tight container at 100°F.

The following day the stored soap flakes are added to an amalgamator. A co-melt of 5 lbs. of paraffin was (Mobilwax 130 from Mobil Oil Company) and 2 lbs. of stearylammmonium laurate which has been obtained by heating to about 180°F is poured over the soap flakes while they are being mixed in the amalgamator. Mixing is continued until the temperature of the mixture drops to about 110°F. The contents are then removed from the amalgamator and milled twice into flakes, using the 3-roll soap mill operating at 95°F to 100°F. The milled flakes are held overnight at 100°F and milled a final time on the 3-roll mill. The milled flakes are then plodded under vacuum (barrel temperature about 95°F, nozzle temperature about 110°F) and stamped into bars.

0015032

PROCTER & GAMBLE (NTC) LIMITED

TNG/hjl

10th June, 1980

European Patent Office,
Receiving Section,
PB 5818 Patentlaan 2,
2280 HV RIJSWIJK (ZH),
The Hague,
NETHERLANDS.

The correction is allowed
Receiving Section
Den Haag,

For the attention of Mr. O. Kelly

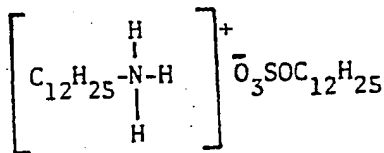
Dear Sir,

Re: The Procter & Gamble Company
European Patent Application No. 80200128.9
- P & G Case 2658M

This responds to the communication of May 23rd, 1980 in which it was remarked that the documents filed on April 23rd, 1980 were not in agreement with those originally filed. The Agent for the Applicants wishes to thank Mr. Kelly for his courtesy and co-operation in defining the relevant passages in the specification during the telephone calls on June 9th, as a result of which it is sought to remedy the deficiencies as set out below:-

1. New Page 11, line 11

The formula should read



corresponding to the formula at line 10 on Page 10 of the specification as filed.

2. New Page 12, line 1

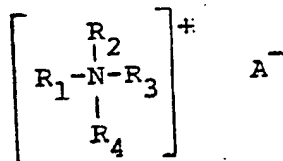
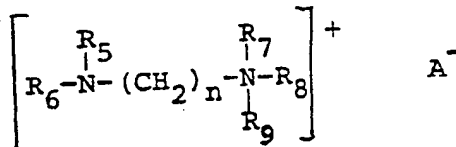
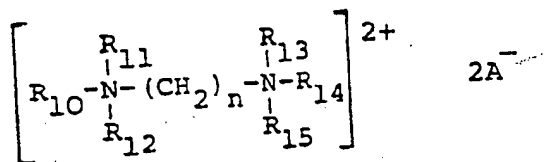
The second word should be "anión" as in line 11 on Page 10 of the specification as filed.

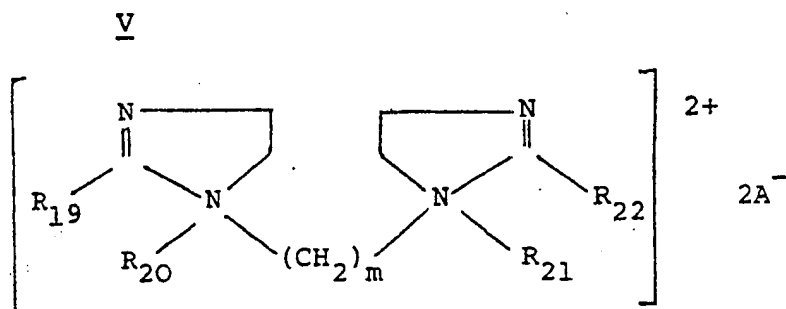
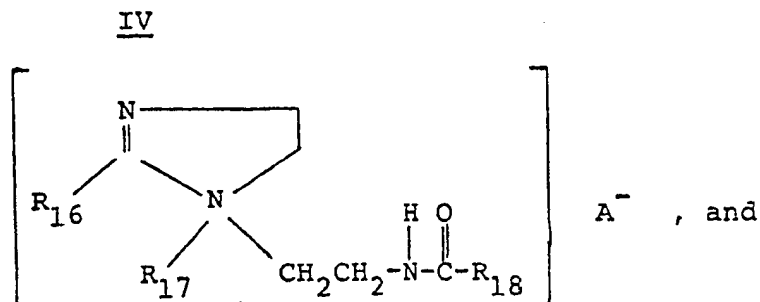
- 1 -

CLAIMS

1. A skin cleansing composition characterized by:-

- (a) from 3% to 95% by weight of a soap selected from the group consisting of alkali metal salts of fatty acids containing from 8 to 20 carbon atoms and mixtures of said soaps; and
- (b) from 0.25% to 25% of a skin conditioning agent selected from compounds having the general formulas:

IIIIII



wherein R_1, R_2, R_3 and R_4 are each selected from the group consisting of hydrogen and aliphatic hydrocarbyl groups containing from 1 to 24 carbon atoms, with at least one of R_1, R_2, R_3 and R_4 being an aliphatic hydrocarbyl group containing from 8 to 24 carbon atoms, wherein R_5, R_6, R_7, R_8 and R_9 are each selected from the group consisting of hydrogen and aliphatic hydrocarbyl groups containing from 1 to 24 carbon atoms with at least one of R_5, R_6, R_7, R_8 and R_9 being an aliphatic hydrocarbyl group containing from 8 to 24 carbon atoms, wherein $R_{10}, R_{11}, R_{12}, R_{13}, R_{14}$ and R_{15} are each selected from the group consisting of hydrogen and C_1 to C_{24} aliphatic hydrocarbyl groups with at least one of $R_{10}, R_{11}, R_{12}, R_{13}, R_{14}$ and R_{15} being an aliphatic hydrocarbyl group containing from 8 to 24 carbon atoms, wherein R_{16}, R_{17} and

3. New Page 17, lines 18-20

The compound "3,4'5-tribromosalicylanilides" is correctly spelt in lines 18 and 19 whereas the compound in the specification as filed (lines 18 and 19 on page 15) was incorrectly spelt. The Applicants therefore seek to make this amendment under Rule 88 of the Implementing Regulations.

The Applicants also wish to correct a typographical error in line 20 on New Page 17 where the first word should be "carbanilide" corresponding to the spelling of the last word in line 19 on page 15 of the specification as filed.

4. New Page 20, line 29

After "wet" insert "bar or the wet washcloth which contains a portion of the. . ." This corresponds to line 21 on page 18 of the specification as filed, which was inadvertently omitted when the specification was retyped.

The Applicants request that the above corrections be made to the Specification by the EPO with the exception of that on Page 20, for which a new page is enclosed in triplicate.

Yours truly,



T.N. Gibson,
Agent for the Applicants

Enc: